

REMARKS/ARGUMENTS

Support for each amended claim is found at the originally filed claims and throughout the originally filed specification.

No new matter is believed to have been added.

The obviousness rejection of Claims 1-20 as being unpatentable over Leppard combined with Mann and Marcus is respectfully traversed, because the references, either alone or in combination, do not describe or suggest all of the features of the present claims.

Present Claim 1 contains the feature “wherein the activator is selected from the group consisting of n-butanol, aromatic chlorohydrocarbons, aliphatic chlorohydrocarbons, aromatic bromohydrocarbons, aliphatic bromohydrocarbons, and combinations thereof.” This feature is not described or suggested by Leppard or Mann or Marcus, either alone or in combination.

The Office, in the Official Action at page 5, describes that Leppard “fails to disclose that the sodium is dispersed in the group consisting of aliphatic alcohols having 1-10 carbon atoms [e.g., n-butanol], aromatic chlorohydrocarbons, aliphatic chlorohydrocarbons, aromatic bromohydrocarbons, aliphatic bromohydrocarbons, and combinations thereof...”

Accordingly, Leppard does not describe or suggest all of the features of present Claim 1 and the claims depending therefrom.

Further, the Office, in the Official Action, at page 5, in describing the teachings of Mann, states “Mann et al., teaches a process for the production of phosphinites and phosphonites that uses sodium aryl produced by dispersing the sodium in an inert liquid medium for example a hydrocarbon medium.” The Office, in the Official Action, further describes that “Mann fails to disclose sodium dispersion in alcohol as the activator in the sodium dispersion process.”

Applicants respectfully note that a hydrocarbon medium (i.e., a medium of hydrogen and carbon) does not describe or suggest the feature of present Claim 1 “wherein the activator is selected from the group consisting of n-butanol, aromatic chlorohydrocarbons, aliphatic chlorohydrocarbons, aromatic bromohydrocarbons, aliphatic bromohydrocarbons, and combinations thereof” because none of these are a medium of hydrogen and carbon (i.e., a hydrocarbon medium).

Further, at page 7 of the Official Action, the Office has argued that “The Mann reference shown that known dispersion agents for sodium include bromo and chloroaromatic compounds (aromatic hydrocarbons).” Applicants respectfully submit the Office has mischaracterized Mann.

Mann describes bromo or chloro aromatic compounds as co-reactants, which react with potassium or sodium to give potassium or sodium aryl metal compounds of the formula ArK or $ArNa$. The potassium or sodium aryl metal compounds of Mann react with a phosphorous compound of formula $ROPClX$ to give phosphinates and phosphonates (see, for example, column 1, lines 19-28, and Example 1 of Mann). Accordingly, Mann does not teach that bromo and chloroaromatic compounds are dispersion agents because, in Mann, bromo and chloroaromatic compounds are reactants, not dispersion agents.

Further underscoring this point, at column 2 lines 12-15, Mann describes, in part, “It is preferred to use a dispersing aid for example carbon black or an aluminum or alkali metal salt of a carboxylic acid having 10 to 20 carbon atoms...”

Thus, Mann does not describe or suggest the feature of present Claim 1, and the claims depending therefrom, “wherein the activator is selected from the group consisting of n-butanol, aromatic chlorohydrocarbons, aliphatic chlorohydrocarbons, aromatic bromohydrocarbons, aliphatic bromohydrocarbons, and combinations thereof.”

Finally, the Office has relied on Macas to describe a sodium dispersion process that includes high molecular weight alcohols (see the Official Action at page 6).

Applicants note that in present Claim 1, and the claims depending therefrom, contain the feature ““wherein the activator is selected from the group consisting of n-butanol, aromatic chlorohydrocarbons, aliphatic chlorohydrocarbons, aromatic bromohydrocarbons, aliphatic bromohydrocarbons, and combinations thereof.” Applicants respectfully note that none of the activators of present Claim 1 is a high molecular weight alcohol.

Accordingly, Macas does not describe or suggest all of the features of present Claim 1 and the claims depending therefrom.

Because none of the cited references, either alone or in combination, describe or suggest all of the features of present Claim 1 and the claims depending therefrom, Applicants respectfully request withdrawal of the obviousness rejection.

Applicants respectfully traverse the obviousness rejection of Claims 1-20 as being unpatentable in view of Leppard in combination with Mann because the references, either alone or in combination, do not describe or suggest all of the features of present Claim 1 and the claims depending therefrom.

Present Claim 1 contains the feature “wherein the activator is selected from the group consisting of n-butanol, aromatic chlorohydrocarbons, aliphatic chlorohydrocarbons, aromatic bromohydrocarbons, aliphatic bromohydrocarbons, and combinations thereof.” This feature is not described or suggested by Leppard or Mann, either alone or in combination.

The Office, in the Official Action at page 5, describes that Leppard “fails to disclose that the sodium is dispersed in the group consisting of aliphatic alcohols having 1-10 carbon

atoms [e.g., n-butanol], aromatic chlorohydrocarbons, aliphatic chlorohydrocarbons, aromatic bromohydrocarbons, aliphatic bromohydrocarbons, and combinations thereof...”

Accordingly, Leppard does not describe or suggest all of the features of present Claim 1 and the claims depending therefrom.

Further, the Office, in the Official Action, at page 5, in describing the teachings of Mann, states “Mann et al., teaches a process for the production of phosphinites and phosphonites that uses sodium aryl produced by dispersing the sodium in an inert liquid medium for example a hydrocarbon medium.” The Office, in the Official Action, further describes that “Mann fails to disclose sodium dispersion in alcohol as the activator in the sodium dispersion process.”

Applicants respectfully note that a hydrocarbon medium (i.e., a medium of hydrogen and carbon) does not describe or suggest the feature of present Claim 1 “wherein the activator is selected from the group consisting of n-butanol, aromatic chlorohydrocarbons, aliphatic chlorohydrocarbons, aromatic bromohydrocarbons, aliphatic bromohydrocarbons, and combinations thereof” because none of these are a medium of hydrogen and carbon (i.e., a hydrocarbon medium).

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Mann describes bromo or chloro aromatic compounds as co-reactants, which react with potassium or sodium to give potassium or sodium aryl metal compounds of the formula ArK or Ar Na. The potassium or sodium aryl metal compounds of Mann react with a

phosphorous compound of formula ROPCl_X to give phosphinates and phosphonates (see, for example, column 1, lines 19-28, and Example 1 of Mann). Accordingly, Mann does not teach that bromo and chloroaromatic compounds are dispersions agents because, in Mann, bromo and chloroaromatic compounds are reactants, not dispersions agents.

Further underscoring this point, at column 2 lines 12-15, Mann describes, in part, "It is preferred to use a dispersing aid for example carbon black or an aluminum or alkali metal salt of a carbonxylic acid having 10 to 20 carbon atoms..."

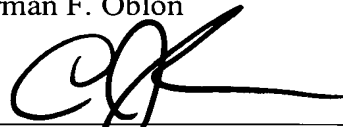
Thus, Mann does not describe or suggest the feature of present Claim 1, and the claims depending therefrom, "wherein the activator is selected from the group consisting of n-butanol, aromatic chlorohydrocarbons, aliphatic chlorohydrocarbons, aromatic bromohydrocarbons, aliphatic bromohydrocarbons, and combinations thereof."

Because none of the cited references, either alone or in combination, describe or suggest all of the features of present Claim 1 and the claims depending therefrom, Applicants respectfully request withdrawal of the obviousness rejection.

Applicants submit the present application is now in condition for allowance. Early notification to this effect is earnestly solicited.

Respectfully submitted,

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